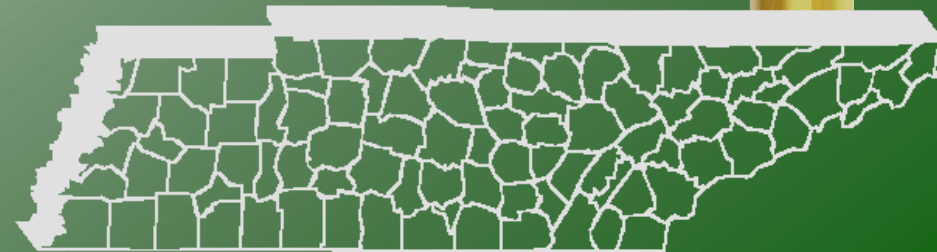# TVAAS 101
Tennessee Value-Added Assessment System

Office of Assessment, Evaluation, & Research

What is TVAAS?

- **TVAAS stands for Tennessee Value-Added Assessment System.**
Based on SAS's Education Value-Added Assessment System (EVAAS) and the statistical methodology of Dr. William Sanders.

- **TVAAS is a statistical method used to measure the influence of a district or school on the academic progress (growth) rates of individual students or groups of students from year-to-year.**
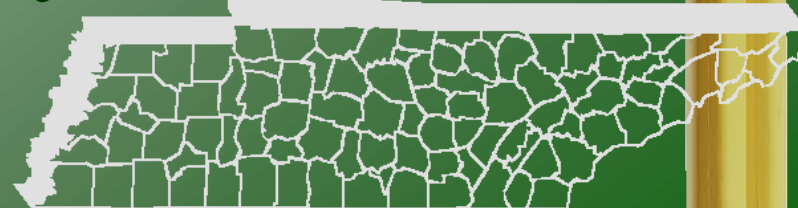
What is TVAAS?

- Statistical methodology used in value-added analysis is very complicated.
- A student's growth pattern is determined using all available previous existing assessment data for that student (all grades, all subjects).
- However, the concept behind it is very simple and straightforward…
- Use a student's existing assessment data to produce measures of progress unique to that student.
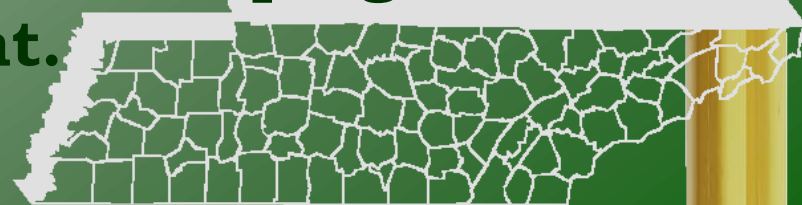
What is TVAAS?

The TVAAS method uses previous test score data to plot a "growth pattern" for students. Think of academic growth in terms of a child's physical growth.

Growth Chart

Height in Inches

|					

Age in Years
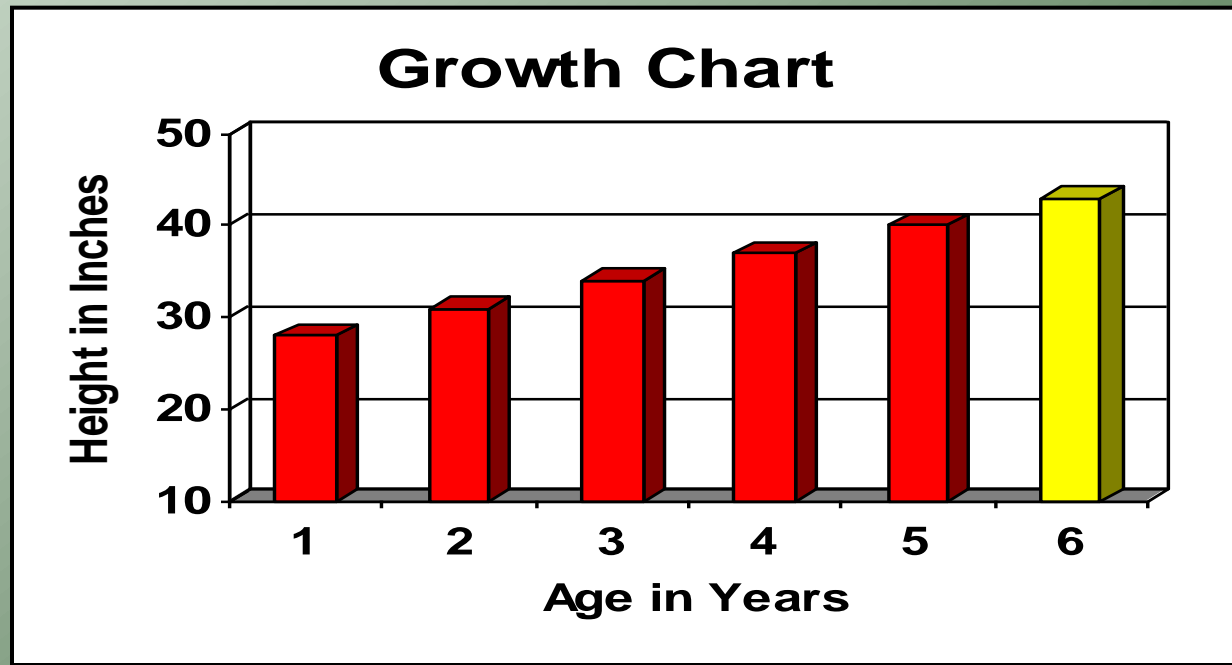
Philosophy Behind Value-Added

- Schools can and should add value for each student yearly.

- This is true whether the student comes in above grade level, at grade level, or below grade level.

- Students are entitled to grow at least at the rate they have demonstrated in the past.
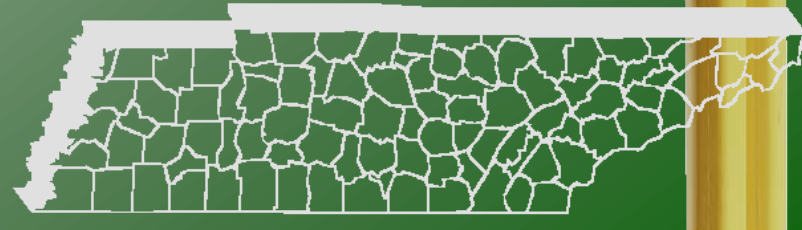
How did it all begin?

- First developed for Tennessee by Dr. William Sanders.
- 1992 – Tennessee Education Improvement Act
- Increased school funding using increased sales taxes
- Demand for increased accountability
- TVAAS set up
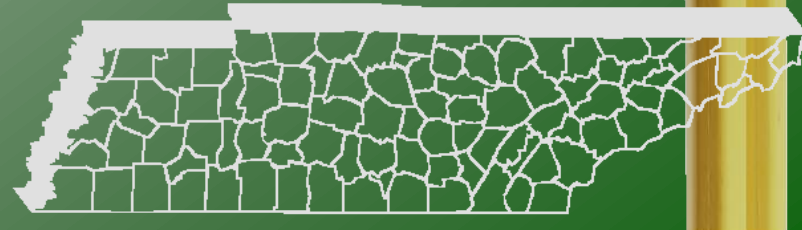
Since then…

- Since 1992, TVAAS has tracked each of the Tennessee's over 885,000 students.
- Over 26 million records! Grades 3-12… every subject… every grade… every teacher…
- Largest student data base ever assembled.
- Currently mandatory in Ohio and Pennsylvania as well as over 300 school districts across the U.S.
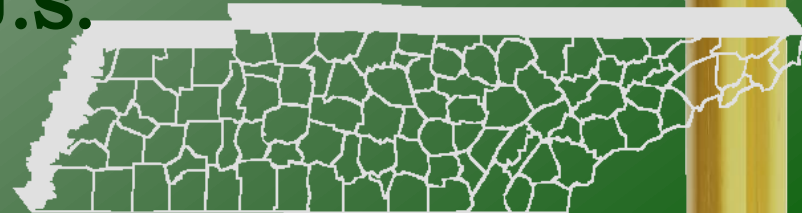
Why do we need TVAAS?

- **Proficiency is measured by the performance of students at a single point in time and how well those students perform against a set of standards. Simply put, proficiency levels only indicate whether or not a student met a certain target.**
- **Growth is measured by how much gain or progress an individual student or group of students make over time. Growth measures do not assume all students start the school year at the same academic level.**
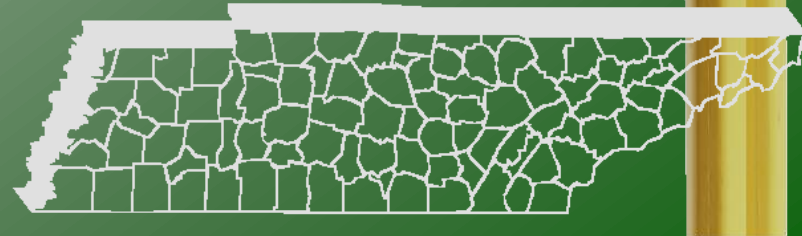
Achievement <u>AND</u> Growth

- **By measuring the academic achievement of students and the academic growth of students, schools and teachers will have a more comprehensive picture of the effectiveness in raising student proficiency.**
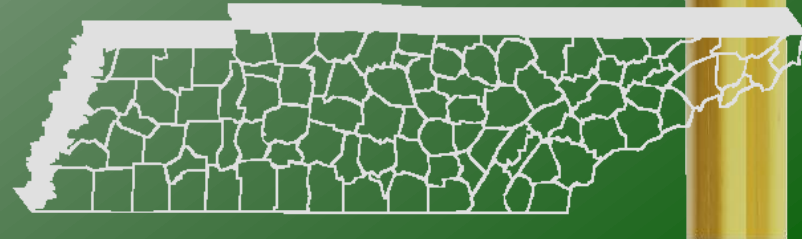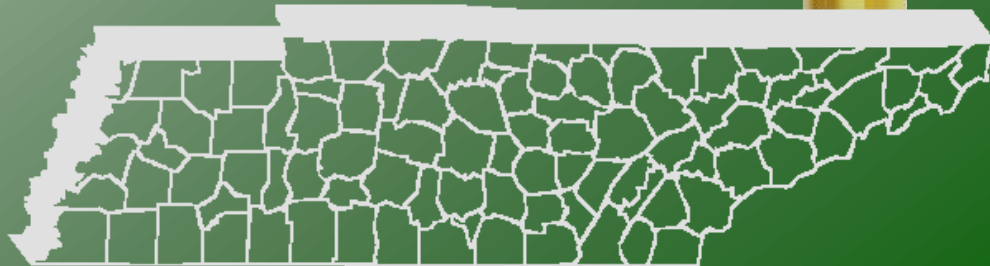
TVAAS Website

- 2010 TVAAS reporting is now available for TCAP Gr. 3 - 8.
- Reports for high school tests will be made available in a later release.

TVAAS Public Site

TVAAS Public Site can be accessed at
http://www.state.tn.us/education/mdata.shtml

2008 Value Added Summary Report for
Alpha School District
TCAP CRT Science

School Name		4	5	6	7	8
Celia Elementary School	2008	-4.7	0.3	--	--	--
	3-Yr-Avg	1.2	0.6	--	--	--
Chris Middle School	2008	--	-0.3	1.2	-6.5	0.8
	3-Yr-Avg	--	-1.2	2.4	-2.6	4.2
Darby Elementary School	2008	-0.2	0.8	--	--	--
	3-Yr-Avg	-0.6	0.4	--	--	--
Dora Elementary School	2008	2.5	-0.9	--	--	--
	3-Yr-Avg	-0.2	1.6	--	--	--
Erin Middle School	2008	--	--	--	9.1	4.4
	3-Yr-Avg	--	--	--	6.3	2.5
Orlene Elementary School	2008	2.9	-4.4	3.2	--	--
	3-Yr-Avg	3.3	0.8	4.9	--	--
Van Middle School	2008	1.9	0.0	-7.0	7.0	-13.0
	3-Yr-Avg	0.6	1.6	-3.2	10.6	-5.8

Reports available on public site:

State Report

School Search

System Value Added

Value Added Summary

System Progress Report

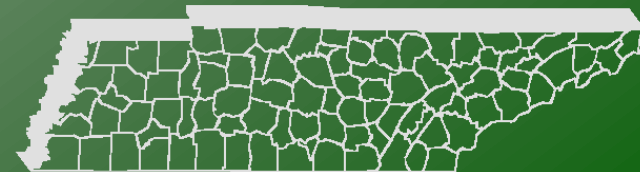School Value Added

TVAAS is....

Projected Score vs. Observed Score

Projected Score – based on all of the student's past state test scores plus student receiving an average Tennessee schooling.

Observed Score – actual score on most recent test.

Restricted Site Log-In

https://tvaas.sas.com/evaas/signin.faces

EMBARGOED INFORMATION:
The 2010 value-added results reported on the site are presently not available to the media or to the public. The public release will come from TDOE.

The Navigation Bar

Click on "Help" to access information about each page or to view/print the *Resource Guide*.
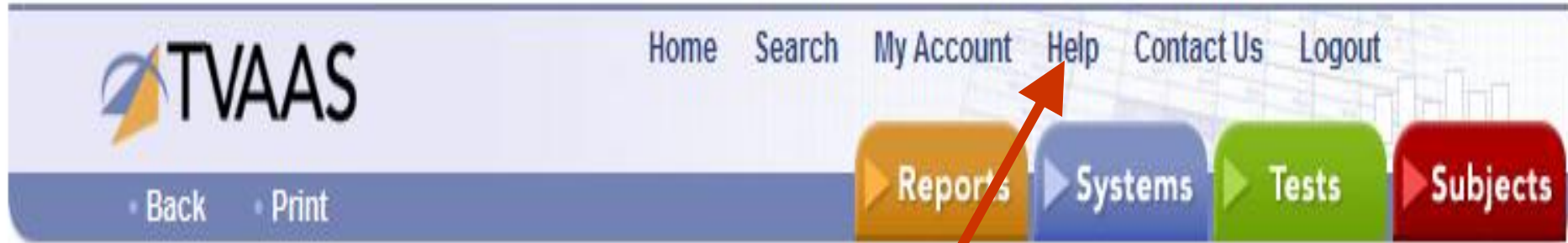
Be sure to use <u>Back</u> and <u>Print</u> tabs on the website not on your browser.

The Navigation Bar

Click on "Reports" Tab to see selection of different reports available.

AYP Dashboard

Future Academic Performance for
by Currently Enrolled Students Projected to the Next Test

Grades 4-8 Projected to Next Tested Grade		
Probability	Nr of Students	Percentage
Advanced: Greater than or equal to 70.5%	118	48%
Accelerate II: Between 50.5% and 70.5%	31	13%
Accelerate I: Less than or equal to 50.5%	96	39%
Students who lack sufficient data	2	1%

Grades 4-8 Projected to Next Tested Grade		
Probability	Nr of Students	Percentage
Advanced: Greater than or equal to 70.5%	124	50%
Accelerate II: Between 50.5% and 70.5%	26	11%
Accelerate I: Less than or equal to 50.5%	95	38%
Students who lack sufficient data	2	1%

4-8 TCAP Math ACHIEVE

1%
39%
13%
48%

4-8 TCAP Reading/Language ACHIEVE

1%
38%
11%
50%
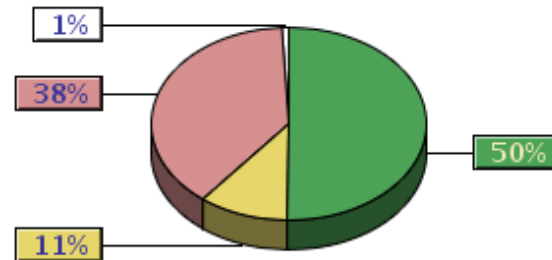
Accelerate I, II, and Advanced

2009 Accelerate I
for Students Enrolled at   Elementary
4th Math ACHIEVE

	Student	System	School	Sex	Race	Enrolled Grade	Gif	Mig	ELL	ED	SpED	FD	CTS	Achievement Probability
1.				F	W	4	N	N	N	Y	N	N	U	47.0
2.				F	H	4	N	N	N	Y	N	N	U	50.1
3.				M	W	4	N	N	N	Y	N	N	U	18.9
4.				F	B	4	N	N	N	Y	Y	N	U	16.6
5.				M	W	4	N	N	N	Y	N	N	U	48.0
6.				F	W	4	N	N	N	Y	N	N	U	4.1
7.				M	W	4	N	N	N	N	N	N	U	11.9
8.				F	W	4	N	N	N	Y	N	N	U	36.5
9.				M	W	4	N	N	N	Y	N	N	U	19.6
10.				M	W	4	N	N	N	Y	Y	N	U	24.3
11.				F	W	4	N	N	N	Y	N	N	U	0.4
12.				M	H	4	N	N	Y	Y	Y	N	U	29.0
13.				M	W	4	N	N	N	Y	N	N	U	13.6

District

School

Subgroup

Student

"Drilling Down"

District
Value Added Summary Reports
Diagnostic Summary Reports
Performance Diagnostic Summary Reports

School
School Value Added Reports
School Diagnostic Reports
School Performance Diagnostic Reports

Subgroup
Custom Student Reports
Student Pattern List

Student
Individual Student Reports
Projections

Understandings

Interpretation Requires
Scale Awareness

Percentage of Scores
Under the Normal Curve

| 1% | 2% | 5% | 9% | 15% | 18% | 18% | 15% | 9% | 5% | 2% | 1% |
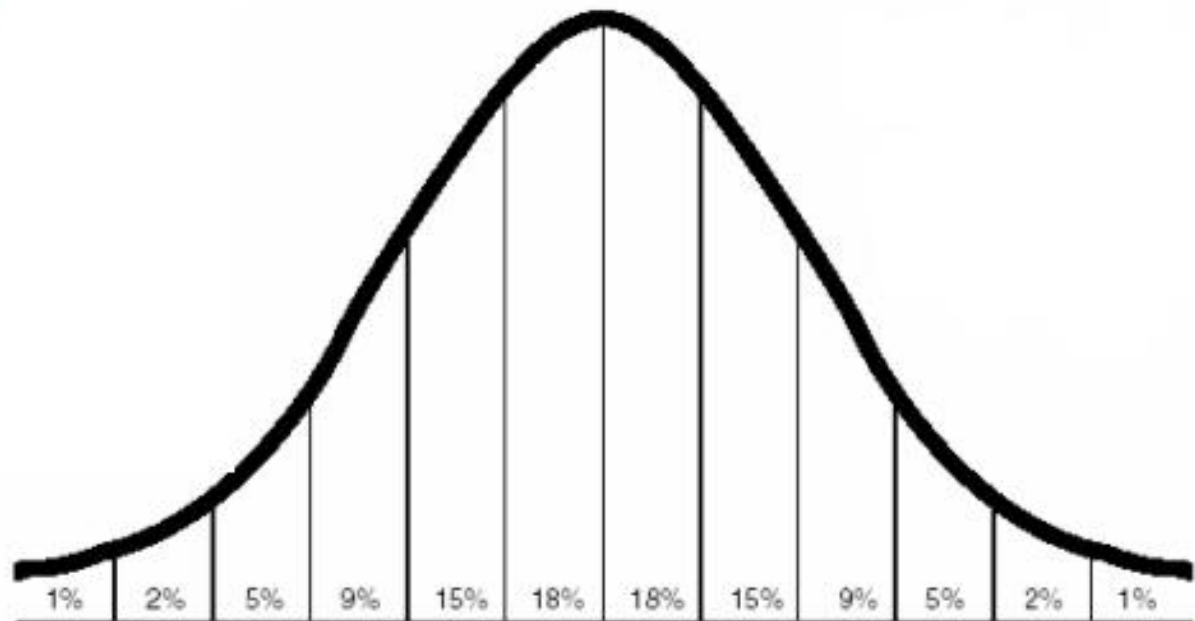
Normal Curve Equivalents

1   10   20   30   40   50   60   70   80   90   99

Percentile Ranks

1   10   20 30 40 50 60 70   80   90   99
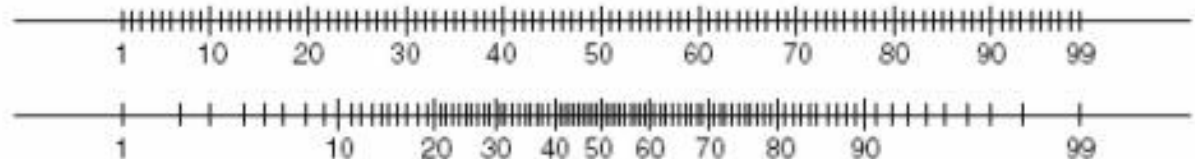
Elementary/Middle School Value-Added Report

Estimated System Mean NCE Gain								
Grade:	3	4	5	6	7	8	**Mean NCE Gain over Grades Relative to**	
Growth Standard:		0.0	0.0	0.0	0.0	0.0	Growth Standard	State
State 3-Yr-Avg:		-0.3	-0.1	0.3	0.1	-0.4		
2007 Mean NCE Gain:		0.3 G	2.5 G*	-0.9 R	2.6 G*	1.5 G*	**1.2**	**1.3**
Std Error:		1.0	0.9	0.8	0.7	0.7	0.4	0.4
2008 Mean NCE Gain:		-0.2 Y	3.6 G*	-0.9 R	2.7 G*	-2.2 R*	**0.6**	**0.7**
Std Error:		1.0	0.9	0.8	0.7	0.7	0.4	0.4
2009 Mean NCE Gain:		-5.2 R*	2.4 G*	-1.8 R*	1.2 G*	2.0 G*	**-0.3**	**-0.2**
Std Error:		0.9	0.9	0.8	0.7	0.7	0.4	0.4
3-Yr-Avg NCE Gain:		-1.7 R*	2.8 G*	-1.2 R*	2.2 G*	0.4 G	**0.5**	**0.6**
Std Error:		0.5	0.5	0.5	0.4	0.4	0.2	0.2
Estimated System Mean NCE Scores								
Grade:	3	4	5	6	7	8		
New State Baseline:	50.0	50.0	50.0	50.0	50.0	50.0		
State 3-Yr-Avg:	48.9	48.4	48.3	47.9	48.1	47.9		
2006 Mean:	48.2	50.9	48.7	48.7	49.9	51.0		
2007 Mean:	48.4	48.6	53.5	47.8	51.4	51.4		
2008 Mean:	51.4	48.2	52.2	52.6	50.5	49.1		
2009 Mean:	45.8	46.2	50.6	50.4	53.8	52.5		

Elementary/Middle School Value-Added Report

G* - Estimated mean NCE gain above the growth standard by at least 1 standard error.

G - Estimated mean NCE gain equal to or greater than growth standard but by less than 1 standard error.

Y - Estimated mean NCE gain below the growth standard by 1 standard error or less.

R - Estimated mean NCE gain more than 1 standard error below the growth standard but by 2 standard errors or less.

R* - Estimated mean NCE gain below the growth standard by more than 2 standard errors.

0.1 G	-2.7 R*	1.6 G*	0.7 G*	-1.4 R*
0.6	0.5	0.6	0.5	0.5
-1.3 R*	-2.4 R*	0.9 G*	0.0 G	-0.4 Y
0.6	0.6	0.6	0.5	0.5
0.2 G	-1.7 R*	1.3 G*	0.5 G	0.4 G
0.6	0.5	0.6	0.5	0.5
-0.3 Y	-2.2 R*	1.3 G*	0.4 G*	-0.5 R

High School Value-Added Report

2009 TVAAS School Value Added Report for Gateway Biology I

Test	Year	N	Mean Student Score	Mean Score %-ile	Mean Pred Score	Pred. Score %-ile	System Effect	System Effect %-ile	System vs State Avg
Biology I	2007	622	538.5	52	545.3	57	-6.7	18	Below
	2008	623	546.4	55	543.7	54	2.6	69	NDD
	2009	597	550.4	58	546.3	54	4.0	71	Above
	3-Yr-Avg	1842	545.0	55	545.1	55	**-0.0**	52	NDD

- Progress significantly Above the average system in the state.

- Progress Not Detectably Different from the average system in the state.

- Progress significantly Below the average system in the state.

Diagnostic Report

Selecting Subgroups in Diagnostic Report

Diagnostic Report

			Observed minus Predicted Score by Predicted Score Quintile				
			1 (Lowest)	**2**	**3 (Middle)**	**4**	**5 (Highest)**
Physical Science	**2008**	**Mean**	25.6	23.5	13.2	15.5	8.6
		Std Err	14.5	2.9	2.3	1.5	2.2
		Nr of Students	14	43	61	95	90
		% of Students	4.6	14.2	20.1	31.4	29.7
	Previous Cohort(s)	**Mean**	24.1	20.9	15.7	10.1	8.7
		Std Err	4.7	2.6	1.6	1.2	1.1
		Nr of Students	38	128	199	265	337
		% of Students	3.9	13.2	20.6	27.4	34.9
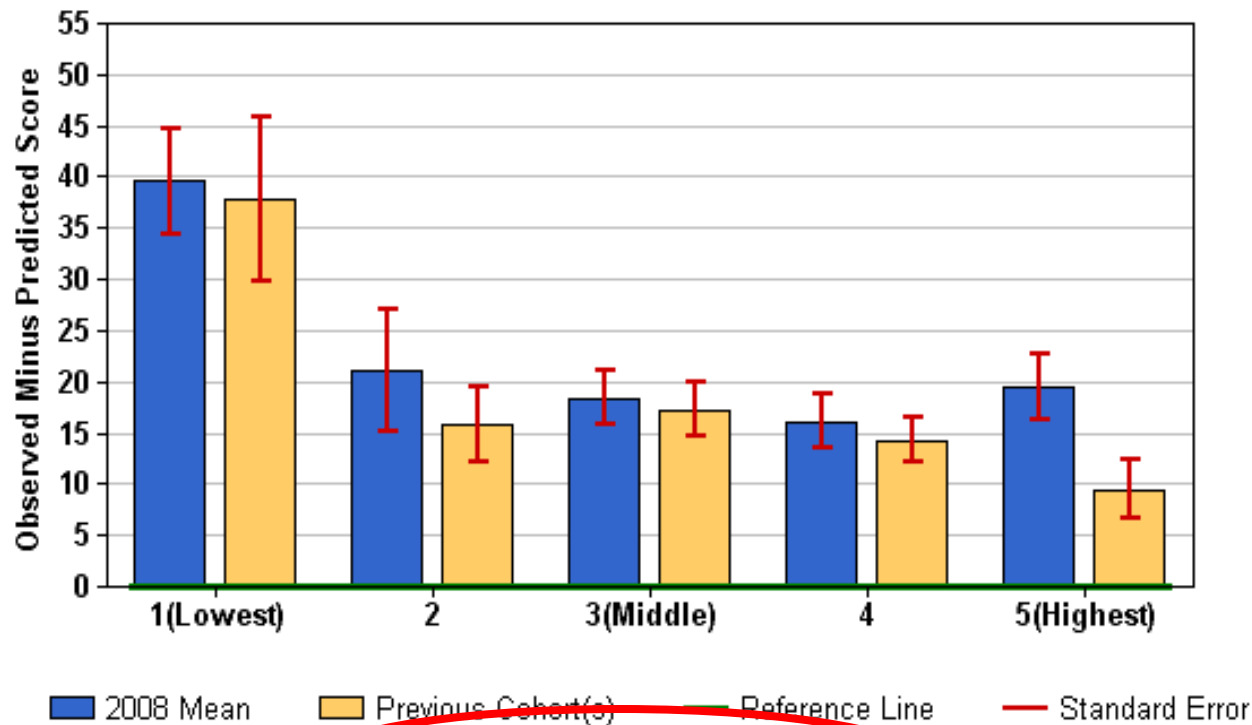
View Performance Diagnostics Report

Student List

Achievement

Student Name	State NCE	Perf Level	School Name
ARENDS, BLANCA	76	AD	Celia Elementary School
FERRANTE, NOBLE	61	P	Celia Elementary School
HITCHMAN, SIMONE	55	P	Celia Elementary School
HOLOWAY, CHERRY	65	P	Celia Elementary School
KLOSINSKI, LUISA	65	P	Celia Elementary School
LANGLEY, CONNIE	59	P	Celia Elementary School
LANZETTA, BRUNO	76	AD	Celia Elementary School

High School

Student Name	Predicted Score	Observed Score	Perf Level	School Name
BABBS, COLE	570.6	566	AD	Ana High School
BEMRICH, BENITO	587.3	592	AD	Ana High School
CHITTESTER, SAMMY	613.3	603	AD	Ana High School
COZZOLINO, MYRA	568.4	603	AD	Ana High School
CRUMMETT, DELLA	571.1	592	AD	Ana High School

Individual Student Report
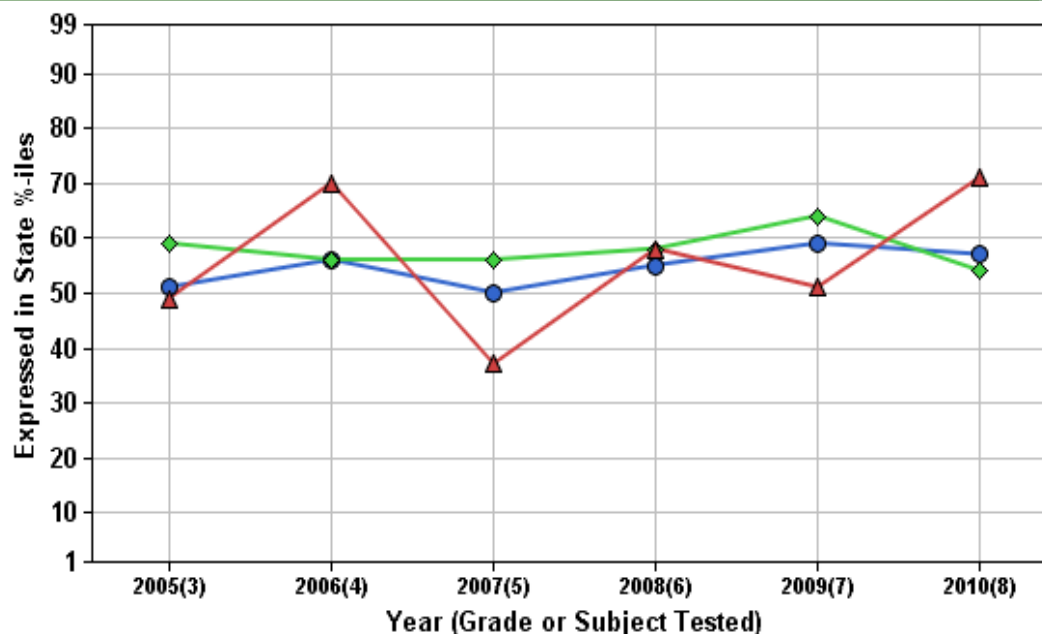
Performance Levels:

NP - Not Proficient

BB - Below Basic

B - Basic

P - Proficient

AD - Advanced

Subject: Math						
	Year (Grade or Subject Tested)					
	TCAP (Math)					
	2005(3)	2006(4)	2007(5)	2008(6)	2009(7)	2010(8)
State NCE \ Score	50	61	43	54	50	58
%-ile	49	70	37	58	51	71
Perf Level	P	AD	P	AD	P	B

Performance Diagnostic Report
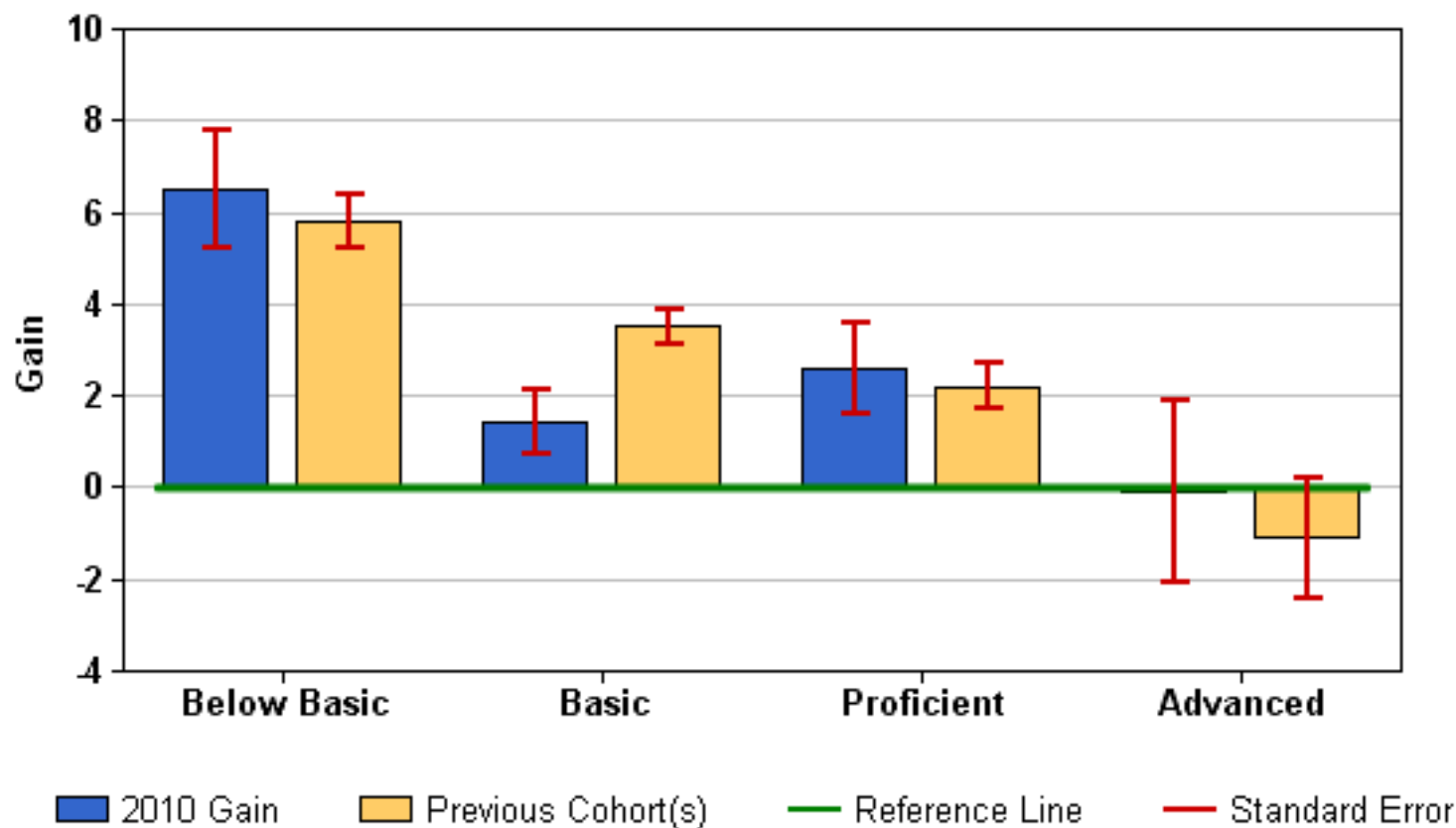
School Search

TVAAS Teaching School Search TCAP CRT Math

School Name: **Chris Middle School**	Tested Grade Data: **5- 8**
% Free/Reduced Price Lunch: **92%**	% Minority: **100%**
% Tested ELL: **0%**	% Tested SpED: **15%**

To find comparable schools, select from these options and click Search:

Same System only: ○ yes ⊙ no

% Free/Reduced Price Lunch: ☐   % Minority: ☐

% Tested ELL: ☐   % Tested SpED: ☐

Search

School	System	Cum Gain Index	5 Mean	5 Gains	6 Mean	6 Gains	7 Mean	7 Gains	8 Mean	8 Gains
					Selected School					
Chris Middle School	Alpha School District	2.9	1	1	1	4	1	2	1	3
				Matching Schools (found: 28)						
Leslie Middle School	Gamma School District	23.4			2	3	4	5	4	5
Van Middle School	Alpha School District	18.5	3	4	4	5	4	4	3	5
Michael Middle School	Gamma School District	10.8	2	1	2	3	2	5	2	2

Custom Student Report

Student Last Name: ❓

Restrict Search by Grade? ○ Yes ⦿ No ❓

Restrict Search to where students are currently enrolled? ○ Yes ⦿ No ❓

Restrict Search by System and/or School(s)? ○ Yes ⦿ No ❓

Restrict Search by Race? ○ Yes ⦿ No ❓

Restrict Search by Sex? ○ Yes ⦿ No ❓

Restrict Search by Demographics? ○ Yes ⦿ No ❓

Restrict Search by Alternative Assessment? ○ Yes ⦿ No ❓

Restrict Search by Projected Proficiency Level? ○ Yes ⦿ No ❓

Search

Custom Student Report

Search Results: 1 - 100 out of 134
Students who last tested in the 6th grade at Chris Middle School

Add	Student	System	School	Sex	Race	Grade	LEP	SpED	Gifted	FRPL	Migrant
☐	AHRENS, BERT	Alpha School District	Chris Middle School	M	B	6	N	Y	N	Y	N
☐	ALLAIN, ELNORA	Alpha School District	Chris Middle School	F	B	6	N	N	N	Y	N
☐	ALLBRIGHT, ALISSA	Alpha School District	Chris Middle School	F	B	6	N	N	N	Y	N
☐	AMINI, NATHANIEL	Alpha School District	Chris Middle School	M	B	6	N	Y	N	Y	N
☐	ANHALT, JERROD	Alpha School District	Chris Middle School	M	B	6	N	N	N	Y	N
☐	ANTHONY, DOLORES	Alpha School District	Chris Middle School	F	B	6	N	N	N	Y	N
☐	BEDNARCZYK, LINWOOD	Alpha School District	Chris Middle School	M	B	6	N	Y	N	Y	N
☐	BERNACCHI, QUINTON	Alpha School District	Chris Middle School	M	B	6	N	Y	N	Y	N
☐	BOEDECKER, WESTON	Alpha School District	Chris Middle School	M	B	6	N	Y	N	Y	N
☐	BONGIORNO, KARLA	Alpha School District	Chris Middle School	F	B	6	N	N	N	Y	N
☐	BOTHMAN, TREVA	Alpha School District	Chris Middle School	F	B	6	N	N	N	Y	N
☐	BOWLING, BONNIE	Alpha School District	Chris Middle School	F	B	6	N	N	N	Y	N
☐	BRUCKNER, MARILYNN	Alpha School District	Chris Middle School	F	B	6	N	Y	N	Y	N

Select This Page | Deselect All | Add Selected Students | Add All Students

Custom Student Report (Saved)

Gateway Algebra I (Proficient)

Click to Resort

	Remove	Student	System	School	Sex	Race	Grade	Gif	Mig	ELL	ED	SpED	Achievement Probability
1.	☐	AILES, THANH	Beta School District	Debby Middle School	F	W	7	N	N	N	N	Y	0.4
2.	☐	ALTROGGE, BUFORD	Beta School District	Debby Middle School	M	W	7	N	N	N	N	N	99.1
3.	☐	ARNZEN, COLE	Beta School District	Debby Middle School	M	W	7	Y	N	N	N	N	100.0
4.	☐	ASP, PETER	Beta School District	Debby Middle School	M	W	7	N	N	N	Y	Y	21.5
5.	☐	BEASON, KARA	Beta School District	Debby Middle School	F	W	7	N	N	N	Y	N	45.8
6.	☐	BELLUS, ALEC	Beta School District	Debby Middle School	M	B	7	N	N	N	Y	N	85.9
7.	☐	BICKFORD, JANET	Beta School District	Debby Middle School	F	B	7	N	N	N	Y	N	69.2
8.	☐	BORKOWSKI, ROSS	Beta School District	Debby Middle School	M	W	7	N	N	N	N	N	6.1
9.	☐	BORNER, RORY	Beta School District	Debby Middle School	M	W	7	N	N	N	N	N	95.9
10.	☐	BOTTO, ALVA	Beta School District	Debby Middle School	M	B	7	N	N	N	Y	N	88.0
												Mean	61.2
												Std Err	12.5

Student Projections (Tab)
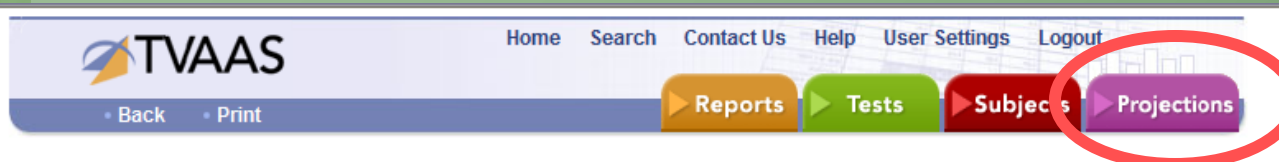
7th Reading/Language
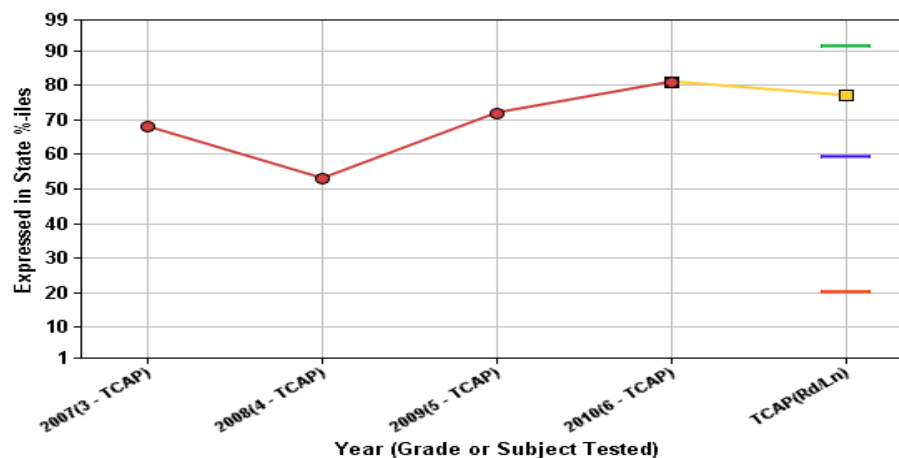
Legend:
- Student's Observed %-ile
- Student's Projected TCAP(Reading/Language) %-ile
- 7th Reading/Language (Basic)
- 7th Reading/Language (Proficient)
- 7th Reading/Language (Advanced)

Projection: 7th Reading/Language			
Projected State Percentile	Probability of Success		
	Basic	Proficient	Advanced
77	99.9%	87.2%	6.1%

Student's Testing History				
	Year (Grade or Subject Tested)			
	TCAP (Reading/Language)			
	2007(3)	2008(4)	2009(5)	2010(6)
State NCE \ Score	60	52	62	69
%-ile	68	53	72	81

Student Pattern List

- **Enables you to see how effective the school/teacher has been with the lowest, middle, and highest achieving students in the group you have selected.**
- **The minimum number of students you can graph is 15.**
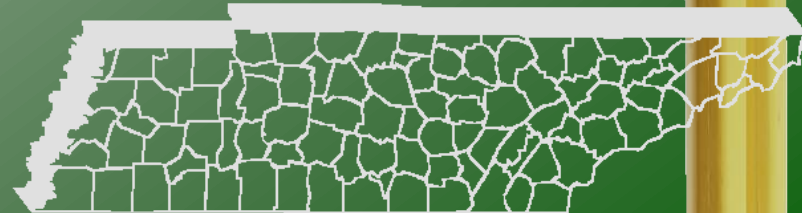
Student Pattern List Elementary/Middle

TCAP CRT (Grade 4):
Math Students

| Select	Student Name	2008 State NCE	2009 State NCE	Avg State NCE	2009 Percentile	Perf Level	School Name
☐	BEGLEY, LETICIA	34	42	38.0	27	P	Chris Middle School
☐	BIGLOW, KRISTOFER	49	51	50.0	40	P	Chris Middle School
☐	BILLIEL, JULIANNE	47	31	39.0	11	NP	Chris Middle School
☐	BOREEN, ARCHIE	53	52	52.5	43	P	Chris Middle School
☐	BREAKELL, BETH	49	47	48.0	34	P	Chris Middle School
☐	BRICENO, LUCY	45	41	43.0	24	P	Chris Middle School
☐	BRISSETT, KATELYN	21	31	26.0	11	NP	Chris Middle School
☐	CANNEY, LYNNE	41	41	41.0	24	P	Chris Middle School

Student Pattern List High School

Algebra I Students

Select	Student Name	Predicted Score	Observed Score	2009 Percentile	Perf Level	School Name
☐	ALBORN, JASMINE	420.0	485	26	NP	Ana High School
☐	ALBORN, JASMINE	476.9	497	33	P	Ana High School
☐	ALDERMAN, SHIELA	461.5	445	9	NP	Ana High School
☐	ALIG, JONATHON		513	45	P	Ana High School
☐	ALTAMIRANO, JERRY	461.5	484	25	NP	Ana High School
☐	AMEIGH, DORTHY	459.5	467	16	NP	Ana High School
☐	AMUNDSON, BRENDON		553	72	AD	Ana High School
☐	ANDREASSEN, DANA	528.9	513	45	P	Ana High School
☐	ANNETT, VIVIAN	487.0	479	22	NP	Ana High School

Student Pattern List
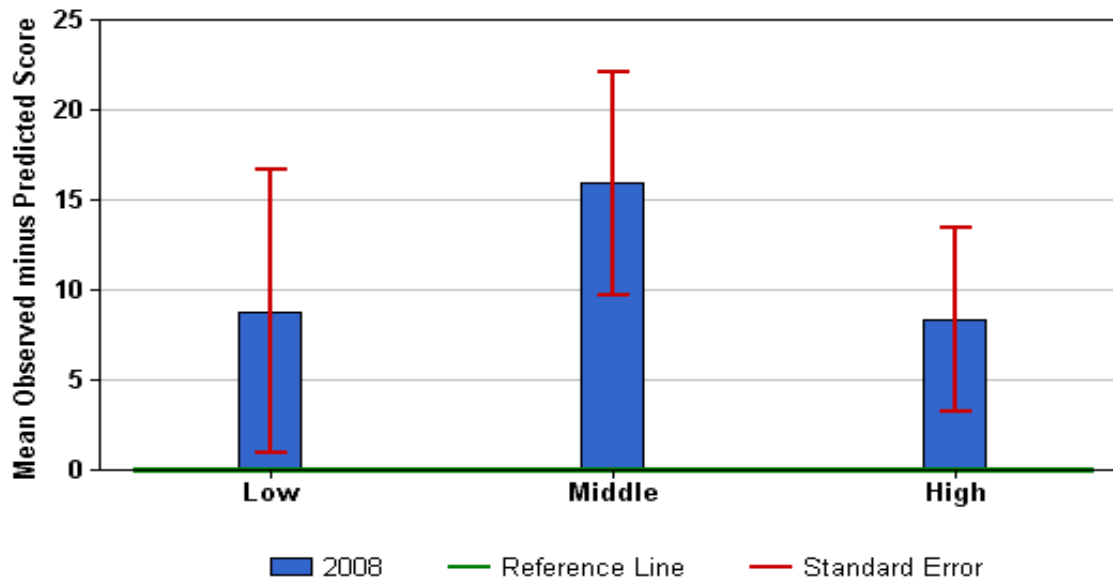
Mean Observed minus Predicted Score		
Low	Middle	High
8.8	15.9	8.3

| Students by Subgroup		
Low	Middle	High
HORACIO GWALTNEY	HARLAN YZAGUIRRE	DEANN AUBIN
KENYA GEITNER	TROY ZOLLO	BERRY GUGEL
RICO CHUKES	ESMERALDA DORNFELD	ALMA HUDY
DEIDRA KEATE	SHANA BUEHRLE	DEON SCHWEBKE
CHELSEY MCDERMOTT	ISABELLE TUEY	ESTER FERANDEZ
MARGO LEPPER	JEWELL CLAEYS	MAXWELL JAHDE
TARYN FALTERMAN	JUNIOR BLUMENTHAL	EVERETTE DIMLER

Third Grade Percentages

2009 TCAP CRT 3rd Grade
Math Students

Student Name	Sex	Race	LEP	SpED	Gifted	FRPL	Migrant	%-ile	School Name
ANDERMAN, TEODORO	M	B	N	Y	N	Y	N	8	Dora Elementary School
BARNOSKI, OMA	F	B	N	N	N	N	N	56	Dora Elementary School
BEBOUT, MA	F	B	N	N	N	Y	N	56	Dora Elementary School
BECZE, MAXINE	F	B	N	N	N	Y	N	35	Dora Elementary School
BEIEN, NATHAN	M	B	N	N	N	Y	N	96	Dora Elementary School
BIAGIONI, STEWART	M	B	N	N	N	N	N	39	Dora Elementary School
BLACKERBY, MICAH	M	B	N	N	N	N	N	87	Dora Elementary School
BOOTON, MAXINE	F	B	N	N	N	Y	N	67	Dora Elementary School
BRACKENS, BEAU	M	B	N	N	N	Y	N	42	Dora Elementary School
BRICK, LATRICE	F	B	N	N	N	Y	N	79	Dora Elementary School
BRIGNOLO, KIM	M	W	N	N	N	Y	N	67	Dora Elementary School
BRINKERHOFF, JACKLYN	F	B	N	N	N	N	N	75	Dora Elementary School
BROADFOOT, ANTONIA	F	W	N	N	N	Y	N	71	Dora Elementary School
CABANILLA, LUKE	M	B	N	N	N	Y	N	32	Dora Elementary School

Using Value-Added to Inform Instruction

- Value-Added reports should be used complementary to information yielded from other student data reports.

- Sound instructional decisions are based on multiple measures of student performance.
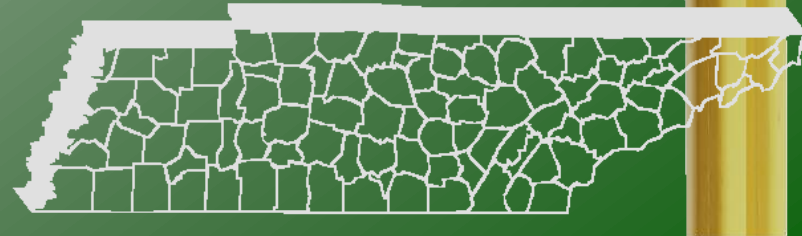
Questions???

For additional information on TVAAS and value-added professional development opportunities, visit the TDOE website at http://www.state.tn.us/education/

Or contact the office of Assessment, Evaluation, & Research

(615) 741-0720